



Ketamine: Factsheet



Evidence ratings:



This resource has undergone expert review. See our Help/Q&A section for more details.

Year: Year 9–10, Year 11–12

Targeted Drugs: Ketamine

Tags: K, special K, Vitamin K, horse tranquiliser, Ket

Time Allocated: Partial lesson (under 45mins)

Origin: Australian

Cost:

Free

What is Ketamine?

Ketamine is also known as K, Ket, special K, Vitamin K, or horse tranquiliser.

Ketamine (ketamine hydrochloride) is a white powder, usually sold in 'bumps' or grams. A 'bump' is a small amount of powder that is typically snorted. Ketamine can also be swallowed, smoked, or injected. As with all drugs sold in powder form, ketamine may also be sold 'cut' (mixed) with other white powder substances which may or may not be harmful. Visit theknow.org.au for Australian drug alerts.

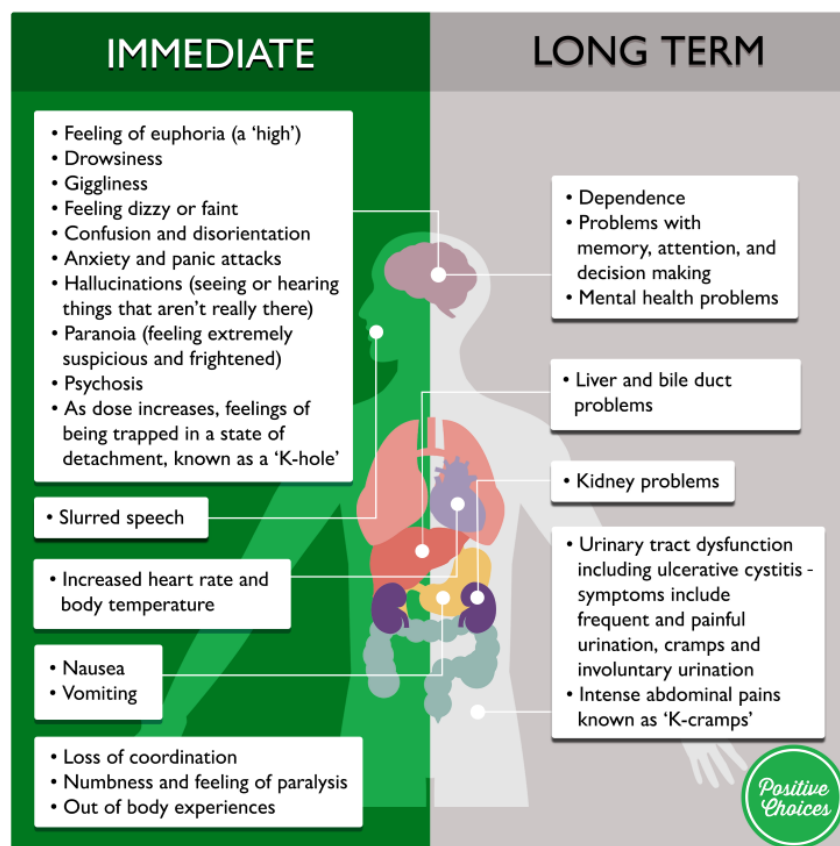
Ketamine is used medically as an anaesthetic, for pain, and in some cases to manage treatment-resistant depression. It is also used by veterinarians to anaesthetise/sedate animals such as horses. When used medically, ketamine is given under medical supervision and the dose is carefully controlled.

What are the effects of Ketamine?

Ketamine falls under a class of drugs known as 'dissociatives'. If snorted, a 'bump' of ketamine takes effect within 5-10 minutes (shorter if injected and longer if swallowed). Its effects can last for a couple of hours.

The effects of ketamine vary, but may include:

Immediate	Long-term
Increased heart rate and body temperature	Dependence (see glossary)
Feeling of euphoria (a 'high')	Problems with memory, attention, and decision making
Drowsiness	Mental health problems
Giggliness	Urinary tract dysfunction including ulcerative cystitis – symptoms include frequent and painful urination, cramps and involuntary urination.
Out of body experiences	Intense abdominal pains known as 'K-cramps'
Loss of coordination	Kidney problems
Slurred speech	Liver and bile-duct problems
Feeling dizzy or faint	
Confusion and disorientation	
Numbness and a feeling of paralysis	
Nausea and vomiting	
Anxiety and panic attacks	
Hallucinations (seeing or hearing things that aren't really there)	
Paranoia (feeling extremely suspicious and frightened)	
Psychosis (see glossary)	
As dose increases, people may experience feelings of being trapped in a state of detachment. This is known as a 'K-hole' and can be a frightening experience.	



Evidence Base

This factsheet was developed following expert review by researchers at the Matilda Centre for Research in Mental Health and Substance Use at the University of Sydney, and Stassi Kypril at the National Centre for Clinical Research on Emerging Drugs.

Sources

1. Morgan, C.J. and Curran, H.V., 2012. Ketamine use: a review. *Addiction*. 107(1): p. 27-38.
2. Jansen, K.L.R., 2000. Review of the nonmedical use of ketamine: use, users and consequences. *Journal of Psychoactive Drugs*. 32(4): p. 419-433.
3. Sindicich, N. and Burns, L., 2012. Australian Trends in Ecstasy and related Drug Markets 2011. Findings from the Ecstasy and Related Drugs Reporting System (EDRS). Australian Drug Trend Series No. 82. , National Drug and Alcohol Research Centre, University of New South Wales: Sydney.
4. MIMS online, 2012. MIMS online accessed 23 August 2012 via UNSW www.mimsonline.com.au.
5. Garlepp, D., Johansen, M. and Gerstner-Stevens, J., 2012. Methorphan and piperazine derivatives in illicit drug seizures in Victoria. Paper presented at 21st International ANZFSS Symposium. Hobart, 23-27 September.
6. Rosenbaum, C.D., Carreiro, S.P. and Babu, K.M., 2012. Here today, gone tomorrow...and back again? A review of herbal marijuana alternatives (K2, Spice), synthetic cathinones (bath salts), kratom, *Salvia divinorum*, methoxetamine, and piperazines. *Journal of Medical Toxicology*. 8(1): p. 15-32.
7. Wood, D.M. and Dargan, P.I., 2012. Novel Psychoactive Substances: How to Understand the Acute Toxicity Associated With the Use of These Substances. *Therapeutic Drug Monitoring*. 34(4): p. 363-367.
8. Hofer, K.E., Grager, B., Muller, D.M., Rauber-Luthy, C., Kupferschmidt, H., Rentsch, K.M. and Ceschi, A., 2012. Ketamine-like effects after recreational use of methoxetamine. *Annals of Emergency Medicine*. 60(1): p. 97-9.
9. Australian Institute of Health and Welfare, 2017. 2016 National Drug Strategy Household Survey report, AIHW: Canberra.
10. Winstock, A.R. and Mitcheson, L., 2012. New recreational drugs and the primary care approach to patients who use them. *BMJ*. 344(Feb 15 1): p. e288-e288.
11. Dillon, P., Copeland, J. and Jansen, K., 2003. Patterns of use and harms associated with non-medical ketamine use. *Drug and Alcohol Dependence*. 69(1): p. 23-28.
12. Stirling, J. and McCoy, L., 2010. Quantifying the psychological effects of ketamine: from euphoria to the K-hole. *Substance Use and Misuse*. 45(14): p. 2428-2443.
13. Reynaud-Maurupt, C., Bello, P.-Y., Akoka, S. and Toufik, A., 2003. Characteristics and behaviors of ketamine users in France in 2003. *Journal of Psychoactive Drugs*. 39(1): p. 1-11.
14. Jansen, K.L.R. and Darracot-Cankovic, R., 2001. The nonmedical use of ketamine, part two: A review of problem use and dependence. *Journal of Psychoactive Drugs*. 33(2): p. 151-158.
15. van Amsterdam, J.G., Brunt, T.M., McMaster, M.T. and Niesink, R.J., 2012. Possible long-term effects of gamma-hydroxybutyric acid (GHB) due to neurotoxicity and overdose. *Neuroscience and Biobehavioral Reviews*. 36(4): p. 1217-27
16. Waheed, H. W., Ashraf, M. R., Sajjad, T., Jehangir, H., Baig, I., Zulaid, A., Nasir, A. R., & Dad, A., 2025. Hepatobiliary Complications Associated With Ketamine Use: Clinical Insights and Future Directions. *Cureus*, 17(5), e84974. <https://doi.org/10.7759/cureus.84974>
17. Schep, L. J., Slaughter, R. J., Watts, M., Mackenzie, E., & Gee, P., 2023. The clinical toxicology of ketamine. *Clinical Toxicology*, 61(6), 415–428. <https://doi.org/10.1080/15563650.2023.2212125>
18. Beck K, Hindley G, Borgan F, et al., 2020. Association of Ketamine With Psychiatric Symptoms and Implications for Its Therapeutic Use and for Understanding Schizophrenia: A Systematic Review and Meta-analysis. *JAMA Netw Open*. 2020;3(5):e204693. doi:10.1001/jamanetworkopen.2020.4693